

WHAT IS CLAIMED IS:

1. A liquid crystal display device, comprising:
 - a first substrate and a second substrate spaced apart from each other, and a display region, a non-display region and a seal pattern region are defined on the substrates;
 - a black matrix over an inner surface of the second substrate;
 - a color filter layer over the black matrix in the display region and the seal pattern region;
 - a plurality of patterned spacers over the color filter layer in the display region;
 - a patterned seal over the color filter layer in the seal pattern region;
 - a seal pattern surrounding the patterned seal in the seal pattern region; and
 - a liquid crystal layer disposed inside the patterned seal.
2. The device according to claim 1, wherein the black matrix is further formed in the seal pattern region.
3. The device according to claim 1, wherein the patterned seal is formed of a same material as the patterned spacers.
4. The device according to claim 1, wherein the patterned seal is formed through a same process as the patterned spacers.
5. The device according to claim 1, wherein the patterned spacers and the patterned seal have a same thickness.

6. The device according to claim 1, wherein the patterned spacers are formed to correspond to the black matrix.

7. The device according to claim 1, further comprising a common electrode between the patterned spacers and the color filter layer and between the patterned seal and the color filter layer.

8. The device according to claim 1, further comprising an array element layer over an inner surface of the first substrate, wherein the array element layer includes a pixel electrode.

9. The device according to claim 1, further comprising an array element layer over an inner surface of the first substrate, wherein the array element layer includes a pixel electrode and a common electrode.

10. The device according to claim 1, wherein the color filter layer and the patterned seal have first and second holes which correspond to each other, wherein the seal pattern is formed in the first and second holes.

11. The device according to claim 10, wherein the first and second holes are formed in the seal pattern region.

12. The device according to claim 10, wherein the patterned seal includes a plurality of openings at an outer portion thereof, wherein the plurality of openings are connected to the second hole.

13. The device according to claim 10, wherein a left portion of the patterned seal has a width of about 1.0 to 1.5 mm, the second hole has a width of about 0.1 to 0.3 mm, and a right portion of the patterned seal has a width of about 1.0 mm to 1.5 mm.

14. The device according to claim 1, wherein a thickness of the liquid crystal layer is defined as a cell gap, and the cell gap is determined by thicknesses of the patterned spacers and the patterned seal.

15. A method of manufacturing a liquid crystal display, comprising:
forming a color filter layer on a first substrate, on which a display region, a non-display region, and a seal pattern region are defined, the color filter layer being disposed in the display region and the seal pattern region;

forming a plurality of patterned spacers in the display region and a patterned seal in the seal pattern region by forming a first insulating material on the color filter layer and patterning the first insulating material through a photolithographic process;

forming a seal pattern outside the patterned seal, the seal pattern having a same thickness as the patterned seal;

attaching the first substrate including the seal pattern with a second substrate; and

injecting a liquid crystal material inside the patterned seal between the first and second substrates.

16. The method according to claim 15, further comprising:

forming a black matrix before forming the color filter layer, the black matrix being disposed between colors of the color filter.

17. The method according to claim 16, wherein the black matrix is formed in the seal pattern region.

18. The method according to claim 17, wherein the black matrix in the seal pattern region is exposed.

19. The method according to claim 15, wherein forming the color filter includes forming a first hole, and forming the patterned seal includes forming a second hole corresponding to the first hole, and the seal pattern is formed in the first and second holes.

20. The method according to claim 15, wherein forming the seal pattern uses one of a screen-printing method and a dispensing method.